



# PATENT COOPERATION TREATY

## PCT

### INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

|   |  |   |  |  |
|---|--|---|--|--|
| Applicant's or agent's file reference<br>CO 0186 PCT  |  | <b>FOR FURTHER ACTION</b>   |  | See Form PCT/PEA/416                         |
| International application No.<br>PCT/EP2004/003617  |  | International filing date (day/month/year)<br>29.03.2004  |  | Priority date (day/month/year)<br>28.03.2003 |
| International Patent Classification (IPC) or national classification and IPC<br>B32B15/08, B32B27/36, B65D65/40   |  |   |  |  |
| Applicant<br>CORUS TECHNOLOGY B.V.  |  |   |  |  |
| <p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 7 sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input type="checkbox"/> sent to the applicant and to the International Bureau) a total of sheets, as follows:</p> <p><input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p> |  |   |  |  |
| <p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the opinion</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input checked="" type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input checked="" type="checkbox"/> Box No. VIII Certain observations on the international application</p>  |  |   |  |  |
| Date of submission of the demand<br><br>28.01.2005  |  | Date of completion of this report<br><br>15.07.2005   |  |  |
| Name and mailing address of the international preliminary examining authority:<br> European Patent Office - P.B. 5818 Patentlaan 2<br>NL-2280 HV Rijswijk - Pays Bas<br>Tel. +31 70 340 - 2040 Tx: 31 651 epo nl<br>Fax: +31 70 340 - 3016   |  | Authorized Officer<br><br>Ibarrola Torres, O<br><br>Telephone No. +31 70 340-  |  |  |

**INTERNATIONAL PRELIMINARY REPORT  
ON PATENTABILITY**

International application No.  
PCT/EP2004/003617

**Box No. I Basis of the report**

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language, which is the language of a translation furnished for the purposes of:
- ☐ international search (under Rules 12.3 and 23.1(b))
  - ☐ publication of the international application (under Rule 12.4)
  - ☐ international preliminary examination (under Rules 55.2 and/or 55.3)
2. With regard to the elements\* of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

**Description, Pages**

1-12 as originally filed

**Claims, Numbers**

1-17 as originally filed

**Drawings, Sheets**

1/2-2/2 as originally filed

☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing

3. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages
- ☐ the claims, Nos.
- ☐ the drawings, sheets/figs
- ☐ the sequence listing (*specify*):
- ☐ any table(s) related to sequence listing (*specify*):

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- ☐ the description, pages
- ☐ the claims, Nos.
- ☐ the drawings, sheets/figs
- ☐ the sequence listing (*specify*):
- ☐ any table(s) related to sequence listing (*specify*):

\* If item 4 applies, some or all of these sheets may be marked "superseded."

# INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.  
PCT/EP2004/003617

**Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

## 1. Statement

|                               |             |      |
|-------------------------------|-------------|------|
| Novelty (N)                   | Yes: Claims |      |
|                               | No: Claims  | 1-17 |
| Inventive step (IS)           | Yes: Claims |      |
|                               | No: Claims  | 1-17 |
| Industrial applicability (IA) | Yes: Claims | 1-17 |
|                               | No: Claims  |      |

**2. Citations and explanations (Rule 70.7):**

**see separate sheet**

**Box No. VII    Certain defects in the international application**

The following defects in the form or contents of the international application have been noted:

**see separate sheet**

**Box No. VIII Certain observations on the international application**

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

**see separate sheet**

**Re Item V**

**Reasoned statement with regard to novelty, inventive step or industrial applicability;  
citations and explanations supporting such statement**

1. The following documents are referred to in this communication:

D1 : PATENT ABSTRACTS OF JAPAN vol. 1995, no. 05, 30 June 1995 (1995-06-30) & JP 7 047649 A (TOYOBO CO LTD), 21 February 1995 (1995-02-21)

D2 : US 5 780 158 A (MINAMIHIRA YUKIHIKO ET AL) 14 July 1998 (1998-07-14)

D3 : US 6 261 654 B1 (OHHASHI YASUO ET AL) 17 July 2001 (2001-07-17)

2. Novelty

2.1 All features of independent claim 1 are disclosed in each of the prior art documents D1 to D3. Consequently, the subject-matter of independent claims 1 is not novel in the sense of Article 33(2) PCT.

Document D1 discloses (see abstract) a polyester composite film comprising : outer layers composed of a copolymer polyethylene terephthalate/isophthalate (i.e, one of the modified PET mentioned in the application, see p. 1, l. 27,28, and considered for the purposes of the examination as a type of PET) and an intermediate layer composed of a copolyester comprising ethylene terephthalate and butylene terephthalate units. This composite is used for lamination with metal layers.

Document D2 discloses (see col. 1, lines 5-26; col. 10, lines 19-23; ex. 1-8,35-43) a sheet material comprising a polymer film laminated to metal substrate, wherein the polymer film comprises a first layer of a copolymer polyethylene

terephthalate/isophthalate, a second layer formed from a composition comprising a first polyester comprising ethylene terephthalate as a main recurring unit and a second polyester comprising butylene terephthalate as a main recurring unit, and a third layer (in contact with the metal plate) comprising a copolymer polyethylene terephthalate/isophthalate.

Document D3 discloses (see col. 8, l. 17-43; col 11, l. 34 to col. 12, l. 13; ex 1-8) a sheet material comprising a polymer film laminated to metal substrate, wherein the polymer film comprises an uppermost layer of PET, an intermediate layer of copolymer polyethylene terephthalate/isophthalate blended with PBT and a lowermost layer (in contact with metal layer) of copolymer polyethylene terephthalate/isophthalate.

- 2.2 All features of independent claim 15 are disclosed in documents D3 (see col. 8, l. 17-26; col. 12, l. 39-45), describing a method in which the resin layers are directly extruded on one side of the metallic sheet.
- 2.3 All features of independent claim 16 are disclosed in documents D2 (see col. 10, l. 5-19 ) and D3 (see col. 8, l. 17-26), describing a methods in which the polymer film is first prepared and then applied to the metal substrate. Consequently, the subject-matter of independent claim 16 is not novel in the sense of Article 33(2) PCT.
- 2.4 Dependent claims 2 to 14 and 17 do not appear to fulfill the criteria of Article 33(2); see in this respect the prior art documents D1 to D3 as cited in the International Search Report.

### 3. Inventive Step

Even though the present set of claims is not considered to be novel, as outlined above, it is noticed that it appears that the application as a whole does not contain any inventive subject-matter. It is not evident which technical problem, linked to the closest prior art document, could be considered to be solved in a non-obvious manner.

**Re Item VII**

1. In the present description it should be indicated that examples 2, 3 and 5 are comparative examples.
2. Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in the documents D1 to D3 is not mentioned in the description, nor are these documents identified therein.
3. Independent claim 1 is not in the two-part form in accordance with Rule 6.3(b) PCT, which in the present case would be appropriate, with those features known in combination from the prior art (documents D1 to D3) being placed in the preamble (Rule 6.3(b)(i) PCT) and with the remaining features being included in the characterising part (Rule 6.3(b)(ii) PCT).

**Re Item VIII**

1. It is clear from the description on page 1, lines 25-29 and page 10, lines 6, 7 that the following features are essential to the definition of the invention:
  - (1) presence of modified PET in the inner layer of the coating system
  - (2) presence of PBT in the barrier layer of the coating system

Since independent claim 1 does not contain these features it does not meet the requirement following from Article 6 PCT taken in combination with Rule 6.3(b) PCT

**INTERNATIONAL PRELIMINARY  
REPORT ON PATENTABILITY  
(SEPARATE SHEET)**

International application No

PCT/EP2004/003617

that any independent claim must contain all the technical features essential to the definition of the invention.



# INTERNATIONAL SEARCH REPORT

International Application No  
PCT/EP2004/003617

A. CLASSIFICATION OF SUBJECT MATTER  
IPC 7 B32B15/08 B32B27/36 B65D65/40

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 B32B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPQ-Internal, PAJ, WPI Data

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category * | Citation of document, with indication, where appropriate, of the relevant passages  | Relevant to claim No. |
|------------|---|-----------------------|
| X          | PATENT ABSTRACTS OF JAPAN<br>vol. 1995, no. 05,<br>30 June 1995 (1995-06-30)<br>& JP 7 047649 A (TOYOCO CO LTD),<br>21 February 1995 (1995-02-21)<br>abstract     | 1-6, 11               |
| X          | US 5 780 158 A (MINAMIHIRA YUKIHIKO ET<br>AL) 14 July 1998 (1998-07-14)<br>column 1, lines 5-26<br>column 10, lines 5-23; claims 1,4,6,16;<br>examples 1-8, 35-43 | 1-7,<br>9-14, 16      |
|            | -/-   |                       |

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

### \* Special categories of cited documents:

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
- \*L\* document which may throw doubt on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

- \*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
- \*Z\* document member of the same patent family

Date of the actual completion of the international search

17 January 2005

Date of mailing of the international search report

27/01/2005

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentplan 2  
NL - 2280 HV Rijswijk  
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
Fax (+31-70) 340-2016

Authorized officer

Ibarrola Torres, O

Form PCT/ISA/210 (second sheet) (January 2004)



# INTERNATIONAL SEARCH REPORT

International Application No  
PCT/EP2004/003617

| C (Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT |   |                       |
|--|---|-----------------------|
| Category *   | Citation of document, with indication, where appropriate, of the relevant passages  | Relevant to claim No. |
| X  | US 6 261 654 B1 (OHASHI YASUO ET AL)<br>17 July 2001 (2001-07-17)<br>column 1, line 18 - column 4, line 26<br>column 8, lines 17-43<br>column 11, line 34 - column 12, line 45;<br>examples 1-8 | 1-6, 8-17             |
| A  | US 4 734 335 A (MONZER HELMUT)<br>29 March 1988 (1988-03-29)<br>column 1 - column 2   | 1                     |

Form PCT/ISA/210 (continuation of second sheet) (January 2004)

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No.

PCT/EP2004/003617

| Patent document<br>cited in search report |    | Publication<br>date | Patent family<br>member(s) | Publication<br>date |
|---|----|---------------------|----------------------------|---------------------|
| JP 7047649                                | A  | 21-02-1995          | JP 3304002 B2              | 22-07-2002          |
| US 5780158                                | A  | 14-07-1998          | JP 10030591 A              | 03-02-1998          |
|   |    |                     | JP 9216323 A               | 19-08-1997          |
|   |    |                     | JP 9216322 A               | 19-08-1997          |
|   |    |                     | JP 9216321 A               | 19-08-1997          |
|   |    |                     | EP 0754546 A2              | 22-01-1997          |
|   |    |                     | JP 9029914 A               | 04-02-1997          |
|   |    |                     | KR 226307 B1               | 15-10-1999          |
|   |    |                     | TW 434144 B                | 16-05-2001          |
| US 6261654                                | B1 | 17-07-2001          | WO 9801298 A1              | 15-01-1998          |
|   |    |                     | AU 3358897 A               | 02-02-1998          |
|   |    |                     | AU 6318796 A               | 02-02-1998          |
|   |    |                     | CN 1228057 A , B           | 08-09-1999          |
|   |    |                     | DE 69725849 D1             | 04-12-2003          |
|   |    |                     | DE 69725849 T2             | 19-08-2004          |
|   |    |                     | EP 0909641 A1              | 21-04-1999          |
|   |    |                     | ID 18710 A                 | 30-04-1998          |
|   |    |                     | WO 9801301 A1              | 15-01-1998          |
|   |    |                     | JP 3115899 B2              | 11-12-2000          |
|   |    |                     | KR 2000022469 A            | 25-04-2000          |
| US 4734335                                | A  | 29-03-1988          | DE 3248670 A1              | 05-07-1984          |
|   |    |                     | DE 3377903 D1              | 13-10-1988          |
|   |    |                     | EP 0115033 A2              | 08-08-1984          |
|   |    |                     | JP 1693357 C               | 17-09-1992          |
|   |    |                     | JP 3059826 B               | 11-09-1991          |
|   |    |                     | JP 59135155 A              | 03-08-1984          |

Form PCT/ISA/210 (patent family annex) (January 2004)